



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200



646.9501
Job Sheet 170859

Part No: 646.9501

Job Qty: 1 ea

Part Name: 206A/B/L-Series Cable Cutter System, High



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/22/18

Job Tracking No:

Due Date: 1/25/18

Created By: Mario Poulin

Type: SOLD

Description:

Note: DWG REV N/C IPP REV:A 12.08.28 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		1/25/18	0.00	0.00	Start Up Stores/Pkg-1		JAN 26 2018 FEB 23 2018
110	Packaging	1 pcs		1/25/18	0.00	0.00	Packaging1-1		
120	QC	1 pcs		1/25/18	0.00	0.00	QC4		
125	DC	1 pcs		1/25/18	0.00	0.00	DC		
130	Packaging	1 pcs		1/25/18	0.00	0.00	Packaging3-1		
140	QC21-FG	1 Ea		1/25/18	0.00	0.00	QC21		

Part Op 125 - Photocopy bluefile & type labels per PPP 646.9501

Descriptions: 130 - Identify and pack for shipping as per PPP 646.9501 Location : FG101

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
600.0990	Magnabond 6398 Part A Size 112 ml	1 Ea (1 ea)	90-Start up Operation	
600.0991	Magnabond 6398 Part B Size 112 ml	1 Ea (1 ea)	90-Start up Operation	
600.1012	Sealant PR1425B2 (#654 sem)	1 pcs (1 ea)	90-Start up Operation	
646.9601	Upper Cutter Assembly	1 Ea (1 ea)	90-Start up Operation	
646.9602	Lower Cutter Assembly High	1 Ea (1 ea)	90-Start up Operation	
646.9810	Deflector	1 Ea (1 ea)	90-Start up Operation	
646.9910	Struts	4 Ea (4 ea)	90-Start up Operation	
647.0110	Roof Doubler	1 Ea (1 ea)	90-Start up Operation	
647.0111	Panel	1 Ea (1 ea)	90-Start up Operation	
647.0112	Strut Bracket	8 Ea (8 ea)	90-Start up Operation	
647.0113	Strut Doubler	2 Ea (2 ea)	90-Start up Operation	
647.0114	Clip	1 Ea (1 ea)	90-Start up Operation	
647.0115	Clip	1 Ea (1 ea)	90-Start up Operation	
647.0116	Doubler	2 Ea (2 ea)	90-Start up Operation	
647.0210	Rail	1 Ea (1 ea)	90-Start up Operation	
647.0310	Channel	2 Ea (2 ea)	90-Start up Operation	
647.0410	Tube	1 Ea (1 ea)	90-Start up Operation	
647.1210	Screen	1 Ea (1 ea)	90-Start up Operation	
AN3-10A	Bolt	8 Ea (8 ea)	90-Start up Operation	
AN3-11A	Bolt	8 Ea (8 ea)	90-Start up Operation	
AN3-3A	Bolt	1 Ea (1 ea)	90-Start up Operation	
AN743-13	Bracket	1 pcs (1 ea)	90-Start up Operation	
CCR264SS-3-06	Rivet	8 Ea (8 ea)	90-Start up Operation	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

CCR264SS3-04	Rivet	12 Ea (12 ea)	90-Start up Operation	
CCR264SS3-02	Rivet, Cherry	4 pcs (4 ea)	90-Start up Operation	
CR3212-4-04	Cherry Rivet	1 Ea (1 ea)	90-Start up Operation	
CR3212-5-4	Cherry Rivet	8 Ea (8 ea)	90-Start up Operation	
CR3213-4-05	Rivet	26 Ea (26 ea)	90-Start up Operation	
CR3213-4-1	Cherry Rivet	14 Ea (14 ea)	90-Start up Operation	
CR3213-4-2	Cherry Rivet	18 Ea (18 ea)	90-Start up Operation	
CR3213-4-3	Rivet, Cherry	18 Ea (18 ea)	90-Start up Operation	
CR3213-4-4	Rivet, Cherry	19 Ea (19 ea)	90-Start up Operation	
CR3213-4-6	Rivet	20 Ea (20 ea)	90-Start up Operation	
MS21042-08	Use Ms21042L08	54 Ea (54 ea)	90-Start up Operation	
MS21042-3	Nut	17 Ea (17 ea)	90-Start up Operation	
MS21047-3	Nut Plate	6 Ea (6 ea)	90-Start up Operation	
MS21059-3	Nut Plate	2 Ea (2 ea)	90-Start up Operation	
MS21059L08	Nut	4 Ea (4 ea)	90-Start up Operation	
MS24694-S8	Screw	5 Ea (5 ea)	90-Start up Operation	
MS27039-08-06	Screw	4 Ea (4 ea)	90-Start up Operation	
MS27039-08-09	Screw	4 Ea (4 ea)	90-Start up Operation	
MS27039-08-11	Screw	43 Ea (43 ea)	90-Start up Operation	
MS27039-08-12	Screw	2 Ea (2 ea)	90-Start up Operation	
MS27039-08-13	Screw	6 Ea (6 ea)	90-Start up Operation	
MS27039-1-08	Screw	5 Ea (5 ea)	90-Start up Operation	
MS27039-1-11	Screw	5 Ea (5 ea)	90-Start up Operation	
MS35842-11	Hose Clamp	1 Ea (1 ea)	90-Start up Operation	
NAS1149F0332P	Washer	62 Ea (62 ea)	90-Start up Operation	
NAS1149FN832P	Washer	111 Ea (111 ea)	90-Start up Operation	
NAS1835-08	Insert	4 Ea (4 ea)	90-Start up Operation	

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐			
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Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
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Description Work Order Deviation 	Disposition 	Completed By
		Lead hand / Supervisor Approval Verification
		QC / QA Coordinator Approval

Root Cause			FAULT CATEGORY		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Master Unit 000114

Tel (613) 632-5200

Containers on Master Unit 000114				
Serial No	Part No	Customer Part No	Status	Quantity
S035908	600.0990	600.0990	Allocated	1
S035907	600.0991	600.0991	Allocated	1
S035902	600.1012		Allocated	1
S035900	646.9602	646.9602	Allocated	1
S035899	646.9810		Allocated	1
S035892	647.0114		Allocated	1
S035891	647.0115		Allocated	1
S035890	647.0116	647.0116	Allocated	2
S035889	647.0210	647.0210	Allocated	1
S035888	647.0310	647.0310	Allocated	2
S035887	647.0410		Allocated	1
S035886	647.1210		Allocated	1
S035884	AN3-10A	AN3-10A	Allocated	8
S035880	AN3-11A		Allocated	8
S035879	AN3-3A	AN3-3A	Allocated	1
S035878	AN743-13		Allocated	1
S035876	CCR264SS-3-06		Allocated	8
S035869	CCR264SS3-02		Allocated	4
S035872	CCR264SS3-04		Allocated	12
S035867	CR3212-4-04		Allocated	1
S035861	CR3212-5-4		Allocated	8
S035859	CR3213-4-05		Allocated	26
S035856	CR3213-4-1	CR3213-4-1	Allocated	14
S035853	CR3213-4-2	CR3213-4-2	Allocated	18
S035849	CR3213-4-3		Allocated	18
S035846	CR3213-4-4		Allocated	19
S035842	CR3213-4-6		Allocated	20
S035838	MS21042-3	MS21042-3	Allocated	17
S035839	MS21042L08		Allocated	54
S035835	MS21047-3		Allocated	6
S035834	MS21059-3		Allocated	2
S035832	MS21059L08		Allocated	4
S035830	MS24694-S8		Allocated	5

24p. 07/2018

24p. 03/2018

S035826	MS27039-08-06		Allocated	4
S035824	MS27039-08-09		Allocated	4
S035823	MS27039-08-11		Allocated	43
S035816	MS27039-08-12		Allocated	2
S035814	MS27039-08-13	MS27039-08-13	Allocated	6
S035813	MS27039-1-08		Allocated	5
S035812	MS27039-1-11		Allocated	5
S035810	MS35842-11		Allocated	1
S035809	NAS1149F0332P		Allocated	62
S035805	NAS1149FN832P		Allocated	111
S035793	NAS1835-08		Allocated	4

647.0113 S040972

646.960, S041628

646.9910 S043327x3 S042004x1

647.0110 S043361

647.0112 S044970

647.0111 S045822

DART
AEROSPACE
S035915



206A/B/L – Series Cable Cutter System, High

PART NO: 646.9501

Original Serial #: S035915

Revision:

Operation: Start up Operation 01/26/18

Change No:

Job No: 170859

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA

TEL.: 1 613 632-5200

Email: sales@dartaero.com

www.dartaerospace.com

REFERENCE ONLY

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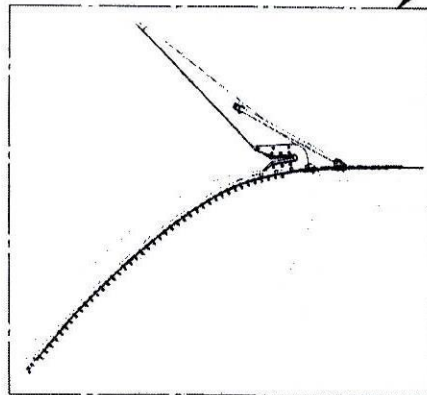
NOTES:

1 AFTER INSTALLATION, APPLY F/N 46 A/R TO FILL GAPS AND FILLET EDGES

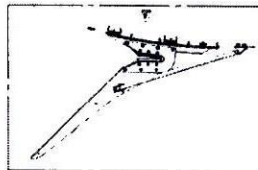
UNINCORPORATED ECN(S)

02729, 02736, 03047

DETAIL A



DETAIL B



QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
1	1	49	601.1066 RIVET	CR3212-4-4	
1	1	48	600.0991 MAGNABOND 6398 PART B		
1	1	47	600.0990 MAGNABOND 6398 PART A		
1	1	46	600.1012 SEALANT	PE 1425 CLASS B	
5	5	45	601.1949 SCREW	MS27039-1-11	
2	2	44	601.2989 SCREW	MS27039-0812	
4	4	43	601.2987 SCREW	MS27039-0809	
4	4	42	601.3000 SCREW	MS27039-0806	

QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
47	47	41	601.2893 SCREW	MS27039-0811	
1	1	40	601.2982 HOSE CLAMP	MS35042-11	
1	1	39	647.1210 SCREEN		
5	5	38	601.1621 SCREW	MS27039-1-08	
14	14	37	601.2979 RIVET	CR3212-4-1	
4	4	36	601.2984 INSERT	MS11835-06	
4	4	35	601.2277 RIVET	CCP2445-09	
8	8	34	601.2983 RIVET	CR3212-6-4	
12	12	33	601.2980 NUTPLATE RIVET	CCP2445-04	
1	1	32	601.2822 BOLT	AN3-3A	
1	1	31	601.2985 BRACKET	AN762-13	
2	2	30	601.1900 NUTPLATE	MS21059-3	
6	6	29	601.2988 SCREW	MS27039-0813	
53	53	28	601.2973 LOCKNUT	MS21042-08	
6	6	27	600.0795 NUTPLATE	MS21047-3	
18	18	26	601.0790 RIVET	CR3212-4-3	
18	18	25	601.1039 RIVET	CR3212-4-2	
19	19	24	601.1915 RIVET	CR3212-4-4	
20	20	23	601.2991 RIVET	CR3212-4-4	
26	26	22	601.1183 RIVET	CR3212-4-5	
4	4	21	601.2356 NUTPLATE	MS21059L0H	
8	8	20	601.2981 NUTPLATE RIVET	LCR2445-1-6	
17	17	19	601.2943 LOCKNUT	MS21042-3	
16	16	18	601.2826 BOLT	AN3-11A	
46	46	17	601.1607 WASHER	MS11470803P	
114	114	16	601.2764 WASHER	MS11470803P	
1	1	15	647.0115 CLIP		
1	1	14	647.0114 CLIP		
1	1	13	647.0410 TUBE		
2	2	12	647.0116 DOUBLER		
1	1	11	647.0111 PANEL		
2	2	10	647.0113 STRUT DOUBLER		
8	8	9	647.0112 STRUT BRACKET		
4	4	8	646.9910 STRUT		
2	2	7	647.0310 CHANNEL		
1	1	6	647.0110 ROOF DOUBLER		
1	1	5	647.0210 RAIL		
1	1	4	646.9810 DEFLECTOR		
1	1	3	646.9603 LOWER CUTTER ASSY LOW		
1	1	2	646.9602 LOWER CUTTER ASSY HIGH		
1	1	1	646.9601 UPPER CUTTER ASSY		
1	1	1	646.9502 20x CABLE CUTTERS KIT LOW		
1	1	1	646.9501 20x CABLE CUTTERS KIT HIGH		

QTY		PARTS LIST	
NEXT ASSY (S)		APICAL INDUSTRIES	
DRAWN BY: J. ROYAL		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: J. ROYAL		OCEANSIDE, CA 92056-3512	
APPROVED BY: J. ROYAL		(760)724-5300	
CONTRACT NO.		206 CABLE CUTTERS KIT	
SHEET 1 OF 3		646.9500	
SCALE: NONE		SHEET 1 OF 3	

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02729				SHEET 1 OF 3	
	DWG NO. 646.9500	REV: N/C	PREPARED BY S. HUFF	DATE: 12/23/09	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: 206 CABLE CUTTERS KIT					
APPROVED BY: ENGR <i>[Signature]</i>		MEG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER		
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		REASON: HARDWARE REVISIONS FROM FIRST INSTALL				

REFERENCE ONLY

51	A	601.3155	8	8	BOLT	AN3-10A
50	A	601.3153	5	5	SCREW	MS24694S8
41	R	601.2893	43	43	SCREW	MS27039-0811
28	R	601.2973	54	54	LOCKNUT	MS21042-08
18	R	601.2826	8	8	BOLT	AN3-11A
16	R	601.2764	127	127	WASHER	NAS1149FN832P
			9502	9501		
F/N	TC	PART NUMBER	QTY		DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED: ☐ MDL ☒ INSTALL INSTRUC ☒ ICA ☐ FMS ☒ BOM						CHANGE CATEGORY ☐ MAJOR ☒ MINOR
						DER REVIEW REQUIRED ☐ YES ☒ NO

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02736			SHEET 1 OF 1	
	DWG NO. 646.9500	REV: N/C	PREPARED BY S. HUFF	DATE: 01/06/10	EFFECT ON DWG ☐ INC. ☒ UNINC.
	DWG TITLE: 206 CABLE CUTTERS KIT				
APPROVED BY: ENGR. <i>[Signature]</i>		MFG. <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER	
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE		REASON: CORRECTED PARTS LIST ERRORS			

REFERENCE ONLY

17	R	601.1607	62	62	WASHER	NAS1149F0332P
16	R	601.2764	111	111	WASHER	NAS1149FN832P
			9502	9501		
F/N	TC	PART NUMBER	QTY	DESCRIPTION		MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED
☐ MDL ☒ INSTALL INSTRUC ☒ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO